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CORPORATE GOVERNANCE AND BOARD COMPOSITION

Diversity and independence of Finnish boards

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Abstract

The board of directors play an important role in representing the owners of the company and work for their interests. Other stakeholders must also be taken into account. Nowadays research in the corporate governance field has become increasingly focused on what kind of directors are elected to the board of directors and for what matters to the election. Because the stereotype of a board member is a male at the end of the career, researchers are interested in what factors have an impact on the transformation of that homogeneous composition.

This study is to examine whether industry type, board size, and shareholder concentration have an impact on board diversity and independence. The variables to be studied are gender, age and independence of board of directors. The sample of study are the top 80 Finnish listed companies by market capitalization at the end of 2016. The study is based on a research conducted in Australia (Kang et al. 2007) with regard to top 100 Australian listed companies. The research data was collected from companies' websites and from Orbis database. The validity of the hypotheses presented in the study is tested by regression analysis. Several descriptive statistics are also performed on the research data.

According to study results, especially shareholder concentration has an impact on board diversity and independence. Lower shareholder concentration has a statistically significant and positive impact on gender diversity and independence of board members. However, contrary to the hypothesis, the age diversity is significantly and negatively associated with lower shareholder concentration. Unexpectedly, there is no statistically significant association between industry type, and the diversity and independence of the board of directors.

The results can be interpreted in such a way that companies seek to comply recommendations of Finnish corporate governance code on diversity and independence of board of directors, and the impact of company and board features is lower. There are still room for improvements. The study offers also other interpretations of the results.

Keywords board diversity, gender diversity, age diversity, board independence, board of directors

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Yhtiön hallituksella on tärkeä rooli edustaa yrityksen omistajia ja ajaa heidän etuja. Myös muut sidosryhmät täytyy ottaa huomioon. Nykyään yhtiöiden hallinnointiin keskittyvät tutkimukset ovat keskittyneet yhä enemmän siihen, millaisia henkilöitä valitaan yhtiön hallitukseen ja mitkä asiat vaikuttava valintaan. Koska hallitusjäsenten stereotypia on uran loppupuolella oleva mieshenkilö, tutkijat ovat kiinnostuneita siitä, millä tekijöillä on vaikutusta tämän homogeenisen koostumuksen muutokseen.

Tässä tutkimuksessa selvitetään vaikuttaako yhtiön toimiala, hallituksen koko ja osakkeenomistajien keskittyminen yhtiön hallituksen monimuotoisuuteen ja riippumattomuuteen. Tutkittavat muuttujat ovat sukupuoli, ikä ja hallituksen riippumattomuus. Tutkimuksen otos on 80 suurinta suomalaista pörssiyhtiötä vuoden 2016 lopun markkina-arvon mukaan. Tutkimus pohjautuu Australiassa tehtyyn (Kang ym. 2007) 100 suurinta pörssiyhtiötä kattavaan tutkimukseen. Tutkimusdata kerättiin yritysten verkkosivuilta sekä Orbis tietokannasta. Tutkimuksessa esitettyjen hypoteesien paikkansapitävyyttä testataan regressioanalyysilla. Tutkimusdatasta esitetään myös useita kuvailevia tilastoja.

Tutkimustulosten mukaan erityisesti osakkeenomistajien keskittyminen vaikuttaa yhtiöiden hallitusten monimuotoisuuteen ja riippumattomuuteen. Vähäisempi osakkeenomistajien keskittyminen vaikuttaa tilastollisesti merkittävästi ja positiivisesti sukupuolten monimuotoisuuteen ja hallituksen riippumattomuuteen, mutta hypoteesin vastaisesti negatiivisesti hallitusjäsenten iän monimuotoisuuteen. Yllättäen, yhtiön toimialalla ei ollut tilastollisesti merkittävää yhteyttä yhtiön hallituksen monimuotoisuuteen ja riippumattomuuteen.

Tuloksia voidaan tulkita siten, että yhtiöt pyrkivät noudattamaan hallinnointikoodin mukaisia suosituksia hallituksen monimuotoisuudesta ja riippumattomuudesta ja yhtiön sekä sen hallituksen ominaisuuksien vaikutus on pienempi. Yhtiöillä on silti vielä parantamisen varaa. Tutkimus tarjoaa myös muita tulkintoja tuloksista.

Avainsanat hallituksen monimuotoisuus, sukupuolijakauma, ikäjakauma, yhtiön hallitus

Table of contents

Tables

Figures

1 Introduction

1.1 Background

A diversity of the composition of the companies' board of directors has been under intense debate from time to time. In particular, the diversity of gender has been in public and gender quota has been proposed every now and then. Finland has not adopted such policy, in contrast with Norway, for instance. Other aspects of the diversity such as age diversity are also raising their heads. That has been less prominent in the public debate, but it has been studied in academic researches. Age and gender diversity belong to an easily detectable features category with the provision that the age is announced. Its publication is mandatory according to the Corporate Governance statement in Finland.

The study 'Corporate Governance and Board Composition: diversity and independence of Australian boards' (Kang et al.) was published in *Corporate Governance: An International Review* in 2007. The study focuses on the top 100 listed Australian companies and the topics to be examined were the gander, age and independence of board members. The study had chosen the age and gender to be examined from the features of diversity. Another topic in the study was the independence of the board members. The idea that board of directors should consist mainly of outside directors has been introduced decades ago, for examples by Chandler in 1975.

The diversity and independence of the boards are topics whose significance and impact have been widely discussed and studied. Especially gender diversity is of great interest. Finland Chamber of Commerce has studied the topic several times, most recently in 2017. Their results show, that women's share of the board seats of listed companies is growing in Finland. They also remark the growth at this pace face challenges by reason of different distribution of women in the leadership of companies. Finland Chamber of Commerce (2017) point out, designating a board member is associated a member's previous career. Most commonly, board members have experience in business management. Particularly having experience in working as CEO gives a good springboard for the board of directors. Mingzhu and Kelan (2013) have been studied the gender quota and female leadership in Norway. Their study addresses the effects of the Norwegian gender quota on board chairs and CEOs after Norway passed a law on the gender quota in 2008. The gender quota law in Norway requires all listed companies to have at least 40 percent women on their boards.

Ferrero-Ferrero et al. (2015) have studied an impact of age diversity on companies' performance. Focusing on age diversity, they examined the effect through three hypotheses, built on the perspective of upper level and Harrison and Klein's diversity typology. Duru et al. (2016) have examined the moderating role of board independence in the case CEO duality while the effect of board independence on research and innovation processes have been researched by study of Balsmeier et al. (2017). The diversity topics has also been discussed variously in the literature. Mishra and Jhunjhunwala: (2013) discuss the various aspects of diversity affecting corporate boards, describing the need for diversity in each category, as well as concerns that may arise from such diversity. Members of the board of directors having very different backgrounds may also cause conflicts. These conflicts mainly relate to communication. A lack of a common technical language or perspective, or question of status or superiority may lead to challenges.

1.2 Scope

This study seizes the diversity and independence of the boards in Finland currently and examines the impact of the factors affecting the diversity and independence of the board of directors (BOD). It has been carried out using actual data about companies to the appropriate extend in the same way as the foregoing Australian one. It is clear, that diversity consists of several factors, such as ethnic background, nationality, gender, age, and less visible educational, functional and occupational backgrounds, industry experience, and organisational membership. There are also many factors influencing board diversity and independence. As well there are many studies from the opposite point of view, how the board diversity affects the performance of the company.

The topic offers a wealth of different potential research variations and approach angles. The attractiveness and topicality of the variables and factors also influenced their selection. Especially gender diversity has been in the spotlight in Finland in recent years, also age diversity being in increasing interest. The board independence is an interesting aspect and raises a natural question of what impact of shareholder concentration has on that. Previous studies already provide evidences of the impact of board size and industry. They are also involved within this study as they are very relevant factors and this study examines their impact in Finland today.

This study excluded for example firm size and internationality of the company as potential influencing factors, however, turnover of the company included as a control variable. There is evidence, that it has an impact on the board diversity. A study setting has been wanted to be clear and use data that is undeniably available. The selected variables also support the integrity of the study. Consequently, dependent variables of this study are gender diversity, age diversity and board independence. Independent variables comprise industry, shareholder concentration and board size. Additionally, turnover is the control variable.

1.3 Hypotheses development

The purpose of this study is to examine whether industry type, board size, and shareholder concentration have an impact on board diversity and independence. Previous studies have shown, that at least board size and industry are important factors. “For example, Hyland and Marcellino (2002) found that the number of women on the BOD is correlated with the size and industry of the organisation” (cited in Kang et al. 2007, p. 197). Hyland and Marcellino also discovered, that diversity training, exercised by large companies, has an impact on BOD diversity. In addition, it has been found that companies in the services sector, including healthcare and technology-related industries, are more likely to employ female directors (Harrigan 1981, cited in Kang et al. 2007, p. 197). Furthermore, when there are more seats on board, it can afford to be more diverse.

Hence, **hypothesis 1** is:

The larger the size of the board, the more diverse and independent will be the board of directors.

In addition, **hypothesis 2** is:

There is an association between industry type, and the diversity and independence of the board of directors.

It can also be assumed that concentration of shareholders has an impact on board diversity and independence. Current development has increased the importance to broaden the domain of corporate governance beyond major shareholders. These are other stakeholders, such as such as small shareholders, suppliers, and employees. A way to take their interests into account is to ensure their diverse representation in the board of directors of company. A smaller shareholder concentration may increase demands of all shareholders to be broadly represented in the BOD. The diversity of the BOD has also a social dimension, the company can legitimize its activities by demonstrating it takes all stakeholders into account. (Kang et al. 2007, pp. 197–198)

Hypothesis 3 is therefore:

The lower the levels of shareholder concentration (represented by a lower percentage of the top 10 shareholders relative to the total shareholding), the more diverse and independent will be the board of directors.

2 Frame of reference

2.1 Corporate governance

Corporate governance is a whole which means administration and control system of companies. The definition is not entirely unambiguous, but it generally refers to a system that includes the roles and responsibilities of key persons of companies and their relationship with the shareholders. These key persons are the company's board of directors and recruited management. "Simplified corporate governance means a system for managing and controlling business activities." (Securities Market Association 2015 a)

Corporate governance can also be described in the following way: It is a system that provides guidelines on how to manage and supervise the company to achieve its goals and create value for the company. At the same time, it will benefit all stakeholders in the long term. These stakeholders include, among others, management, shareholders, customers and the community. The system is based on principles such as honesty and fairness, being transparent in respect of all transactions. In addition, the business is carried out by making all necessary decisions and communications in compliance with the laws of each country, responsibly to the company's stakeholders, and committed to make business ethically. It is also an important fact that those who lead the company see the difference between their own and the company's assets. (Thomson 2009)

In the simplest, the purpose of corporate governance is to control the management's activities. Through that control, the owners of the company strive to ensure the best return on their investment. The aim is to get the management of the company to work best for the owners. Such a corporate governance system that aims to maximise the value of a share, is familiar from the US. The Japanese and the German system emphasize also expectations and requirements of other stakeholders. While the share of foreign capital in Finland has increased, the raise of the share value has become increasingly central in the management and control of the company. (Leppämäki 1999)

The ultimate problem of corporate governance comes from the time when the whole definition did not exist. That problem has been presented in the classical book" The Modern Corporation and Private Property" by Berle and Means (1932). They brought up a problem that arises when the company's management and ownership are separated. A situation in which the company's managers do not necessarily act in a way that is in line with the interests of the owners of the company, constitutes one of the basic problems of modern business management. A so-called principal-agent-review has been built around it. (Leppämäki 1999)

Theories behind corporate governance provide a foundation for understanding an historical perspective of modern governance standards. Figure 1 shows the development of the corporate governance regarding the separation of ownership and management of companies.

Figure 1 Development of the separation of ownership and management (Kaplan 2012)

Listed companies are often very complex and require a substantial investment in equity to fund them. Due to that, they often have a large number of shareholders who delegate control to professional managers (the board of directors) to run the company and normally play a passive role in the daily management of the company. That arrangement can lead to a potential conflict of interests between directors and shareholders. Well-known economics theory, agency theory describes these emerging conflicts of interests and cost of agency relationship. It also provides resolution measures for the agency problem. Figure 2 portray the relationship between principal and agent.

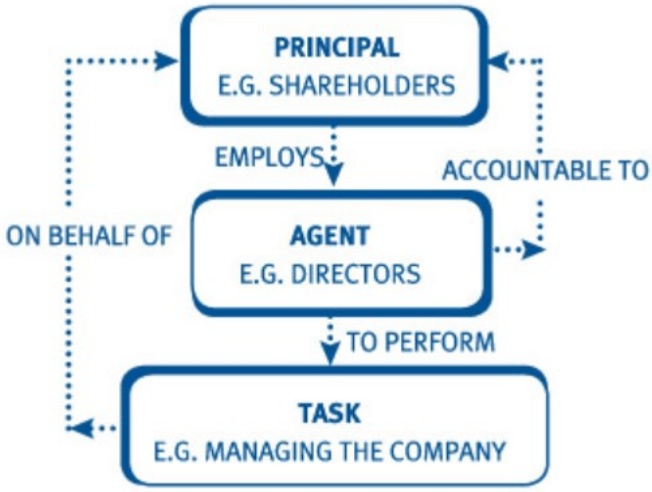

Figure 2 The relationship between principal and agent (Kaplan 2012)

The principal-agent relationship is involved in many cases. These include, inter alia, above mentioned relationship between shareholders and directors. Another common case in business is relationship between shareholders and auditors. The audit is a key component of corporate governance and auditors act as agents to shareholders when performing an audit. Auditor independence from the board of directors is of great importance at the same time they need to work closely with directors to carry out their work. That may cause trust and confidence concerns for owners. (Kaplan 2012)

It is in the interest of the company's owner and other stakeholder that the company is managed in accordance with good governance. According to the principal-agent problem, the management of the company may have an interest to act contrary to the interests of the owners. Their activity can also be detrimental to other stakeholder groups. For example, acting in violation of some laws or regulations or just a good manner. Several different stakeholders, such as customers, the community or shareholders often suffer from it. Such violations are usually quickly reflected in share price too in listed companies, depending on the seriousness of the violation, hence affecting the value of the company. For that reason, the company's corporate governance considers also the possibility of these situations.

Stakeholders of company are large number of different interest groups. These groups are dealt with in stakeholder theory. "The basis for stakeholder theory is that companies are so large and their impact on society so pervasive that they should discharge accountability to many more sectors of society than solely their shareholders" (Kaplan 2012). Different stakeholders are shown in Figure 3.

Figure 3 Stakeholders (Kaplan 2012)

Regulation concerning the corporate governance of the listed companies in Finland consist of several factors. The essential law regulations come from the companies Act, the Securities Market Act, the Auditing Act and the Accounting Act. In addition, some key directives, such as Shareholder Rights Directive and the Fourth Company Law Directive as well as Commission recommendations on management fees and independent management members come from the EU. In addition to these, the corporate governance of listed Finnish companies is substantially influenced by the corporate governance code of the Finnish listed companies, managed by Finnish Securities Market Association. The code has been compiled on the comply or explain principle. That means the company must comply with all the code recommendations by default. However, if the company differ from the recommendations, deviations must be reported and justified. (Securities Market Association 2015 b & c)

The purpose of the corporate governance code is to promote the transparency, comparability and good governance of Finnish listed companies, thus supporting the competitiveness and success of the companies. The objective is that companies comply with a high level of international governance and the code has considered the regulation of the European Union, international development and user experiences. (Securities Market Association 2015 d)

2.2 Board composition and diversity

Explained by Mishra and Jhunjhunwala: (2013, p. 1) “A board of directors is a group of persons elected or appointed by the shareholders to oversee the activities of a company. They are entrusted with the overall direction of the enterprise.” Duties of the board of directors are, to be responsible for governing the company, giving strategic direction and monitoring the progress of the company in respect of the objectives defined by shareholders.

The role of a board member is demanding. It requires directors to have different features to enable successful managing of the organization. We can see in Figure 4 that board members need inward, outward and forward-looking perspectives.

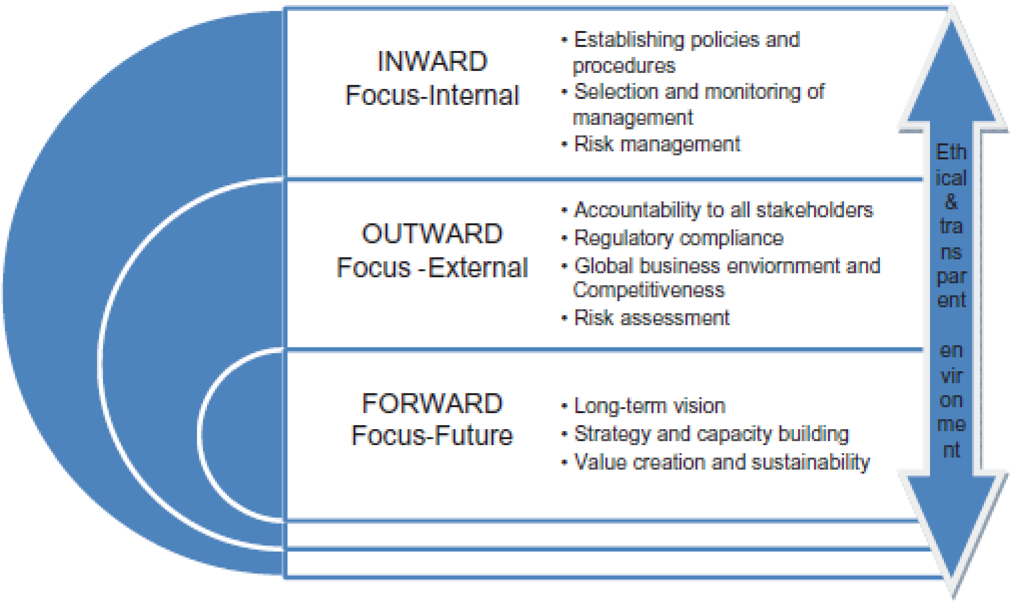

Figure 4 Perspectives and role of board members (Mishra and Jhunjhunwala 2013, p. 4).

It is important to build the right processes and policies within the organization and to choose the right people the run the business. Then, the organization must always be concerned about the surrounding business environment and all stakeholders. The board members also have to be capable to build the long-term vision and strategy for the company. These requirements set pressure on the composition of the proper board of directors. The BOD must be well-balanced, to have a broad vision, experience, but it must also be able to look to the future with the courage and fresh eyes.

How to ensure the BOD overcome its demanding tasks. Because nobody is a clairvoyant, it can only be assured, the BOD together has the broadest possible view and understanding. That is a case of board diversity. “Board diversity refers to the heterogenous composition of the board in terms of gender, age, race, education, experience, nationality, lifestyle, culture, religion, and many other facts that make each of us unique as individuals” (Mishra and Jhunjhunwala 2013, p. 5).

As the performance of the BOD is dependent on directors effectively executing their roles and carrying out their responsibilities, the board dynamism has been a matter of great concern lately. The decisions of BOD impact all stakeholders, and making these decisions successfully is a big challenge. The BOD needs comprehend, inter alia, the global environment, political and economic conditions, the industry’s competitiveness and market situations. In order to that is possible, the directors must come from different backgrounds.

Mishra and Jhunjhunwala (2013, pp. 2–6) also present five rationales for board diversity: Innovation and creative problem solving, which is due to different approach in consequence of different backgrounds. That helps the BOD to avoid group thinking. Acquiring talent and employee relationships is the second rationale. A diverse board assist to acquire diverse and talented employees. Rationale three is understanding the business marketplace. The diverse BOD understands better the marketplace and specific needs of diverse communities. That result in better profitability as a result of improved sales.

The rationale number four is access to resources and networks. Board members with different backgrounds give access to different resources and networks. For example members with financial industry experience or political connections can help meet the people in these areas. The last one rationale is reputation enhancer. The company can also benefit in terms of reputation including women, minorities and stakeholders’ representatives on the board. That is also a social matter.

Bear et al. (2010) have studied impact of board diversity and gender composition on corporate social responsibility and firm reputation. A positive reputation can affect, among other things, financial performance, institutional investment and share price. Previous studies have shown, female directors bring many strengths to the BOD, including an increased sensitivity to corporate social responsibility (Williams 2003, cited in Bear et al. 2010) and participative decision-making styles (Konrad et. al. 2008, cited in Bear et al.

2010). Board resource diversity, in turn, has effect on enhanced team innovation (Bantel and Jackson 1989; Joshi and Roh 2009, cited in Bear et al. 2010), enhanced network ties (Beckman and Haunschild 2002, cited in Bear et al. 2010), and skills to advise and monitor management (Carpenter and Westphal 2001, cited in Bear et al. 2010) The assumption of Bear et al. was these features might have an effect on corporate social responsibility (CSR) ratings. They examined what effect underlying diversity of board resources, in this case understood as professional backgrounds, and the number of female directors on board had on that ratings, and how CSR influenced corporate reputation.

By the findings of Bear et al., the number of female directors on the BOD has a positive relationship with strength ratings for CSR. The study also suggested the female directors on BOD play a role in enhancing corporate reputation by contributing to firm's CSR. However, when it comes to diversity of director resources, the study did not support an increased diversity was positively associated with CSR strength ratings. That could be due to the fact, that the study focused on companies that already had a high diversity of director resources and most of them captured the benefits of diversity of director resources.

Another similar study is the research of Zhang et al. (2013), concerning the corporate social responsibility in the United States in the post Sarbanes-Oxley era. The study covered over 500 of the largest listed companies in 64 different industries and examines two aspects of board composition, the presence of outside directors and the presence of female directors and their relationship with CSR performance. They viewed CSR performance as a reflection of a company's moral legitimacy among its stakeholders. Their conclusion was that outside and female directors enhanced stakeholder management which fostered stakeholder acceptance and thus helped to establish the company's legitimacy among its stakeholders. Greater presence of outside and female directors was also related to better CSR performance within the company'

2.3 Gender and boards

Gender is certainly the most debate raising issue in the board diversity framework. Some countries have introduced statutory quotas for women percentages in the board of directors of listed companies. Norway, Iceland, Spain, France, Belgium, Italy and the Netherlands are such countries in Europe. A decision on quotas has been taken in Germany and is being discussed in many other countries. "There is also a proposal for a directive in the EU that sets out the objectives of strengthening the gender balance in the governing bodies of listed companies." Several European countries have promoted the issue through equality objectives or legislative measures. (THL 2017)

Finland does not have statutory gender quotas. However, women's share of the board seats in the listed companies is at the top of the EU and the world. In 2017, the proportion of women reached a record high of 27 percent. As we see in Figure 5, the proportion has been steadily rising since 2003, though at the beginning the growth was rather slow.

Figure 5 The board composition of the Finnish listed companies in the 2003-2017 (Finland Chamber of Commerce 2017, p. 8).

As only 7 percent of the board members of the listed companies were women in 2003, over the past nine years the number has doubled. That development has been realized by the initiative of companies and with support of self-regulation, without compelling guidance of the authorities or legislation. Although development has been significant, women are still under-represented in the boards. There are also threats to the current pace of the development. That is due to the fact that a significant number of board have previous experience in responsible business management, often as chief executive officer (CEO). If women's share is to increase at the same rate as at present, so must increase their stake in position of business management and CEO. (Finland Chamber of Commerce 2017, p. 8)

As noted by report of Finland Chamber of Commerce (2017), designating a board member is associated a member's previous career. The board membership can be seen as a kind of career destination. People with right expertise and competence are selected as board members. First of all, CEO is a good springboard for that position, while company's support functions do not offer a path to the BOD in the same way. That is clearly seen in Figure 6 that shows the background of the board members in Finnish listed companies in 2016.

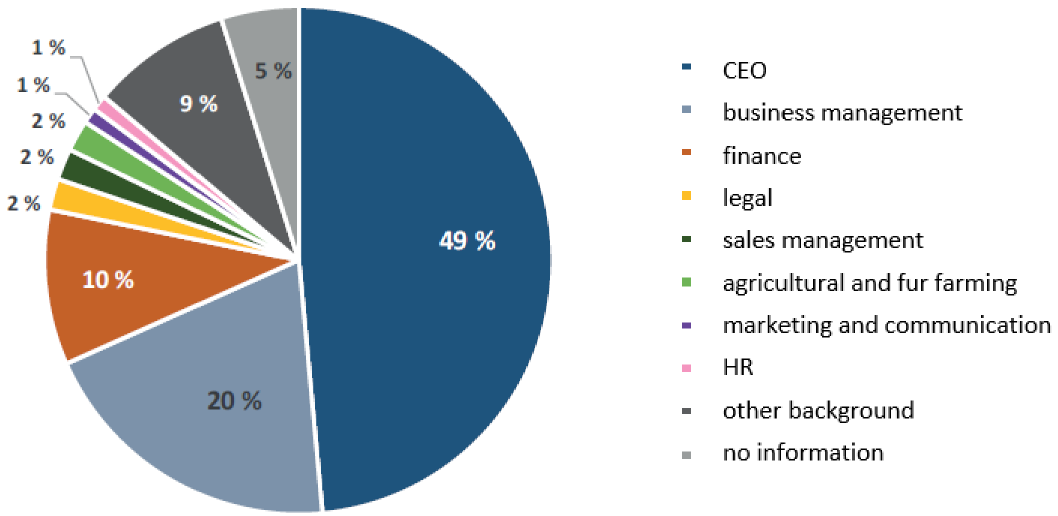

Figure 6 The background of board members in Finnish listed companies in 2016 (Finland Chamber of Commerce 2017, p. 19).

As shown in the picture, 69% of the board members have the background in the managing business operations. Almost half of that amount, 49 percent, concern working as CEO. Majority of men, 53 percent, had the CEO background, while women accounted for 35 percent (Figure 7). Against this background, it is easy to understand role of the appointment as CEO important, if not the most important catalyst for increasing the number of women's board seats.

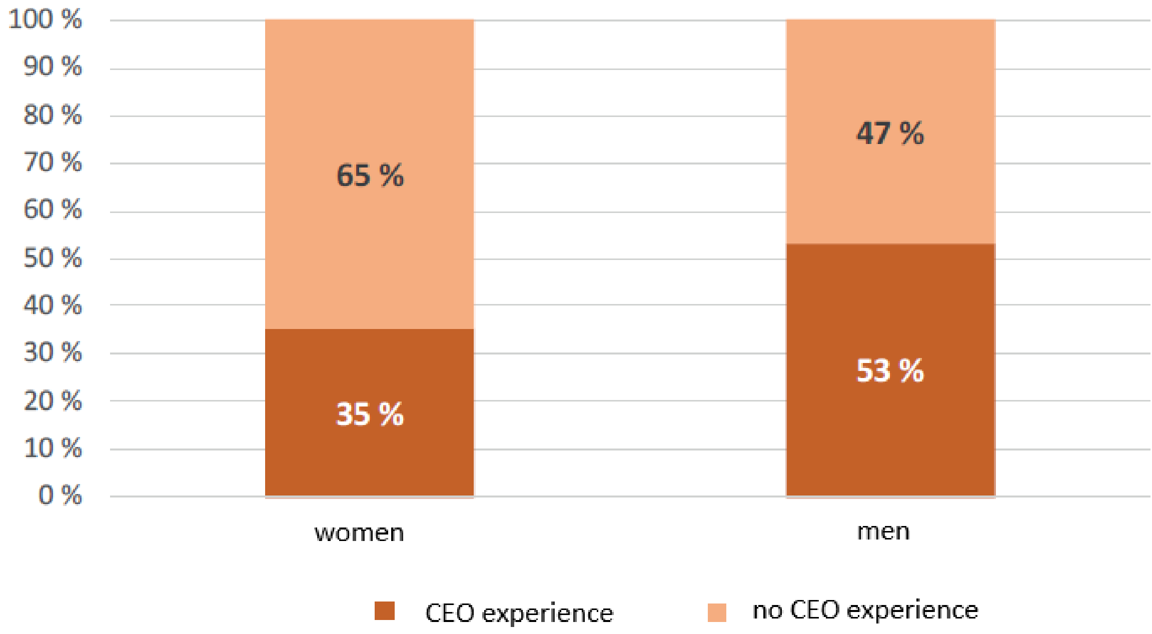

Figure 7 The background of the board members, CEO experience (Finland Chamber of Commerce 2017, p. 19).

Women's hare of the CEOs of listed companies has been relatively slow in Finland, unlike the number of women in BODs and executive boards. The first female CEO in Finnish listed company keep waiting until 2011 and there was only one female CEO in those companies as far as 2014. After that, development has been more rapid. In 2017, women's share of the CEOs in the listed companies rose to their new record when nine out of the 125 listed companies have a woman as CEO, accounting for 7,2 percent. That percentage is pretty good compared internationally. The corresponding proportion is 5,9 percent in Sweden, 7.0 percent in United Kingdom (FTSE 100) and 6,4 percent in US (Fortune 500). The development has been steadily positive in Sweden, but it has stopped in recent years. US development is still on growth track while there is no clear direction in United Kingdom. (Finland Chamber of Commerce 2017, pp. 26–28)

What are then the ways how women's share of CEOs can be raised. There is evidence that the percentage of female directors does not directly affect the likelihoods of women being appointed as CEO. Mingzhu and Kelan (2013) have been studied the effects of the Norwegian gender quota on board chairs and CEOs in the period of 2001–2010 after Norway passed a law on the gender quota in 2008. The gender quota law in Norway requires all listed companies to have at least 40 percent women on their boards.

They founded that the percentage of female directors does not directly affect the likelihoods of women being appointed as CEO but the presence of critical mass (at least 3 female members on board) has a positive links between the presence and the appointments of female board chairs and female CEOs. Though it has no statistical associations with the presence of female top leaders over the period. In addition, when the number of independent directors on BOD increases, so increases the likelihood of female CEOs' appointment respectively. Mingzhu and Kelan also had hypothesis of a board chaired by a woman is more likely to appoint a female CEO. That hypothesis is supported by their research results. (Mingzhu and Kelan 2013, p. 463)

Statistics show that the number of female directors in BODs can be increased rapidly by gender quotas but it that does not increase the number of woman as CEOs or in the executive board. That situation is also in the case of Norway. Attention should also be paid to the fact that women in the executive board often work in the support functions. That is an international phenomenon. Albeit, that tendency seems to have diminished for younger generations. There is no easy and quick solution to the situation, but Finland Chamber of Commerce (2017) has composed a list of 17 points to promote women's leadership.

Here are some of points, which would have an impact on recruiting pool of the top management. The parts of society are, firstly, bringing new attitudes and role models into early education and training. Secondly, encouraging girls to study mathematical and natural science subjects to educate in technical and business areas. The means of employers are: Recruitment processes are being built so that they encourage both genders to apply for jobs and identifying the leader potential within the company, taking into account women and diversifying women's skills. Means for women themselves are: Remember mathematics and science subjects in the school and technical and business areas in the studies. Grab the challenges and go to the discomfort area and diversify your skills and go for new jobs. (Finland Chamber of Commerce 2017, appendix 1) The list includes many other good ways to increase women's leadership, in addition to these picked up points, but it can be seen from these points the demand of change of attitudes and processes, if there is a desire to promote women's leadership.

2.4 Age of directors

Traditionally, board of directors in companies consist of middle- or senior-aged directors and a big part of them are in the retirement age. However, a rapid transformation in technology and social trends demands younger directors. “Young directors are likely to be more agile, energetic, and supportive in innovation. Their risk appetite for new ventures and approaches is likely to be greater. Younger generations have a much better appreciation of the benefits and perils of the latest technology.” (Mishra and Jhunjhunwala 2013, p. 75)

Ferrero-Ferrero et al. (2015) have studied an impact of age diversity on companies’ performance. Focusing on age diversity, they examined the impact through three hypotheses, built on the perspective of upper level and Harrison and Klein’s diversity typology. According to Harrison and Klein (2007), “diversity can be defined in three different ways: diversity as separation, variety, and disparity, and each type of diversity might have different effects on corporate performance” (cited in Ferrero-Ferrero et al. 2015, p. 250).

The first hypothesis was: “A greater separation leads to a lower level of corporate performance.” Diversity as separation, in this context, refers to differences in position or opinion among unit members, and is closely related to theories of similarity attraction social identity and self-categorization. Theories posit that people with similar attributes reach a consensus more easily, have higher levels of cooperation and less disagreements, thus making them work more efficiently.

The second hypothesis was: “A greater variety leads to a higher level of corporate performance.” In this context, “diversity as variety indicates differences in kind or category, knowledge, or experience among unit members”, resulting in greater information richness and consequently more effective decisions. Hypothesis three concerns the concentration of “valued social assets of resources such as pay, power, prestige, and status among unit members.” It goes “A greater disparity leads to a lower level of corporate performance.” Here is the idea that a member of lower status has less influence on group’s decisions, hence the conditions for BOD’s decisions have not been ideal. (Ferrero-Ferrero et al. 2015, pp. 252–253)

The results they found supported the idea that age diversity has an impact on the company's performance. Defined as generational diversity, the age diversity impacts the company's performance positively. Teams whose members can take advantage of the experience of different generations can produce more useful information for the team. However, Ferrero-Ferrero et. al did not find support for hypotheses 1 and 3, the impact of age diversity as separation and disparity, in their research. The results of the study show how complex a research object is, as such a variable that can be quite easily determined. Therefore, it is good to approach the subject from different angles and perspectives. As Eisenhardt (1989) suggest, "theoretical pluralism rather than one dominant theory better captures the complexity of the behaviour of boards of directors" (cited in Ferrero-Ferrero et al. 2015, p. 267).

Mishra and Jhunjhunwala (2013) found out how 50s and 60s in the board of directors. The average age of board members in Europe is 58 and in the US 37% of the board members are 64 or over, the number being increased over the last decade. With respect to board directors younger than 50 years, Finland is slightly below the average of other countries in sample, as seen in Figure 8.

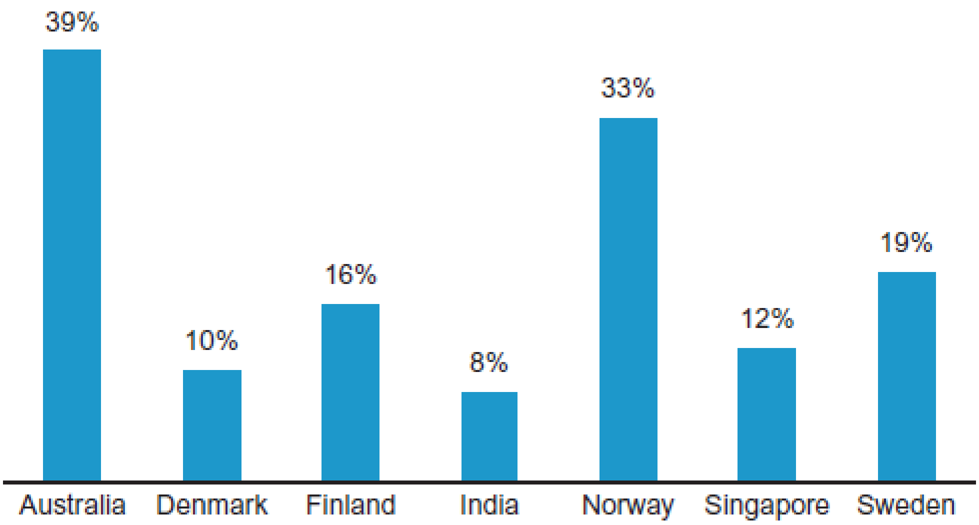

Figure 8 Proportion of Directors Younger Than 50 Years (Mishra and Jhunjhunwala 2013, p. 78). Notes: Year of data is as follows: India 2011; Singapore 2010–11; Sweden, Norway, Denmark, and Finland 2010; and Australia 2009.

Australia and Norway lead in the number of board members under the age 50, while India and Denmark are the last ones. These figures have an impact, even on international level, as the number of younger board members increases the BOD's age diversity and thus the effectiveness of the BOD correspondingly.

Barrett (2017, p. 2) has examined age diversity within the boards of the companies in the S&P 500. She found out "there is little dispersion in the average age of directors between different S&P 500 company boards . . . most commonly directors in their fifties, sixties and seventies . . . in general, board age diversity does not vary significantly by company size, or by industry segment." The research is based on data from 2016. Her remarks are in line with findings of (Kang et al. 2007). Directors over 51 amounted up to 80,69 percent in their research. The result is not surprising, as board directors are former leaders from other companies. Barret also made a note, slightly counterintuitively, there is little difference in average board age across industries, as we see in Figure 9.

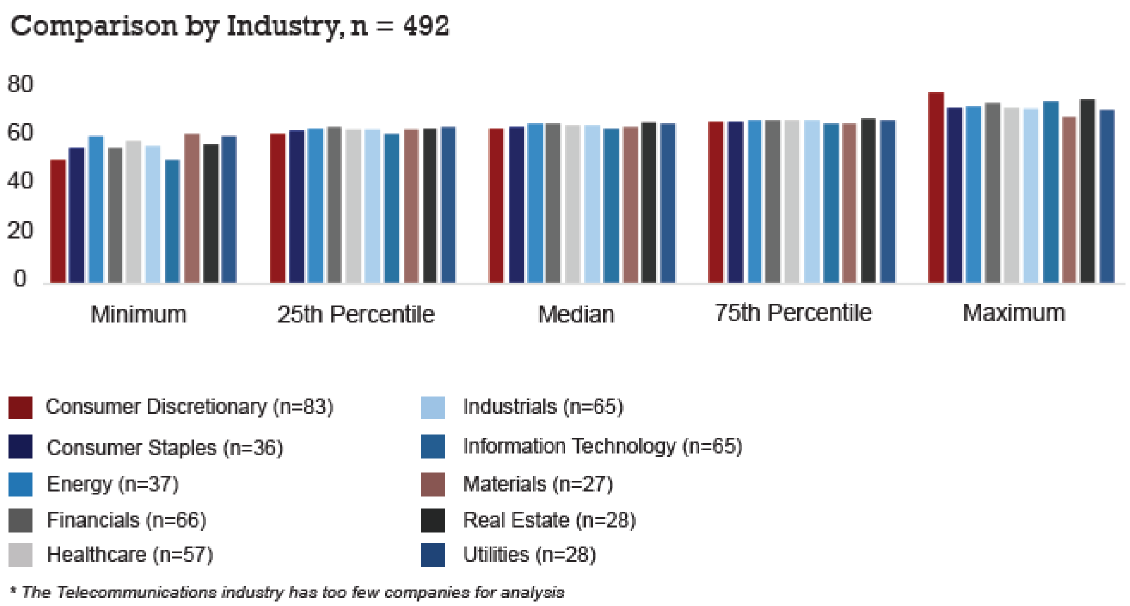

Figure 9 Average Age of Directors within Each Board (Barrett 2017, p. 7)

In this comparison, Consumer Discretionary and Information Technology groups stand out slightly regarding the youngest median average age and the youngest minimum average age in board of directors of S&P 500 companies. However, the results were very uniform.

2.5 Board independence

According to Finnish Corporate Governance Code (Securities Market Association 2015 e, p. 26), "The majority of the directors shall be independent of the company. At least two directors who are independent of the company shall also be independent of the significant shareholders of the company." The evaluation of the independence of the board members, is the task of BOD. Composing the board in that way, the interests of the company and all shareholders are ensured.

Independent directors are not connected or associated with the company. They do not have material or financial relationship with the company in which board they are member. Therefore, they have independency of judgement. Vijay (2012) describes the position of independent director in Figure 10.

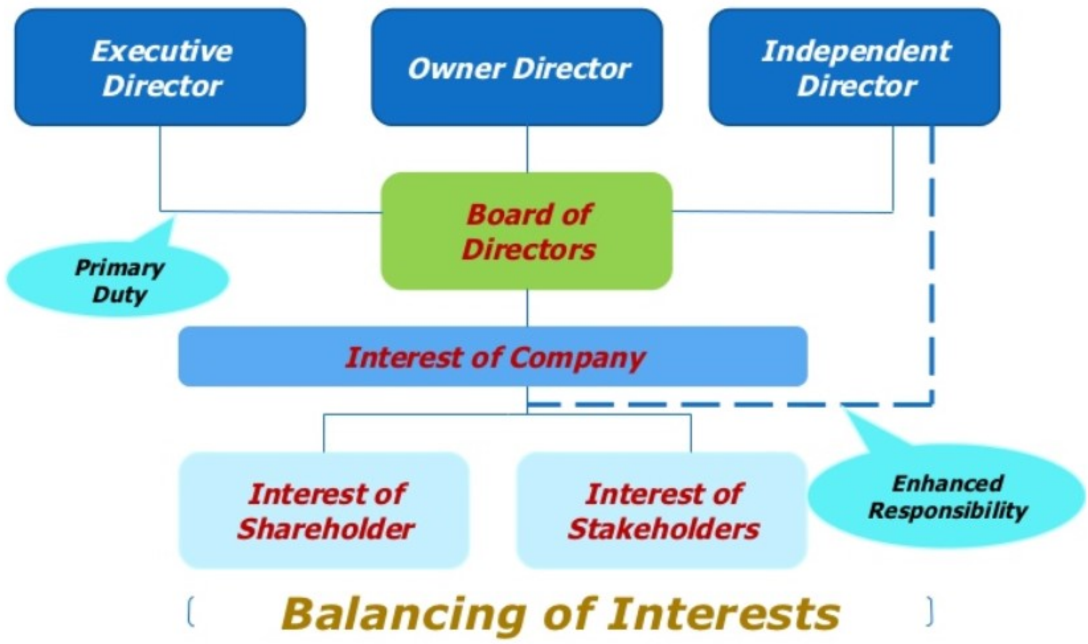

Figure 10 Position of independent director (Vijay 2012)

While executive directors have their own interests in the company, because of their primary duty within the organisation of the company, can independent directors balance the interests of all stakeholders, including all shareholders. Independent directors also enhance responsibility. For example, they ensure all directors act in accordance with terms of their mandate, to exercise their tasks with care and skill, to use discretionary power in good faith and purpose, acting in advancing the interest of their company. (Vijay 2012)

Finnish Corporate Governance Code defines the concept of independence of directors in recommendation 10. Definition includes the independence of the company, independence of major shareholders and the overall evaluation. The key points in the definition are: A director is not independent of the company if he or she work for the company or has been in a non-temporary employment relationship over the last three years. The independence is also impaired by audit and customer relationship issues. The director is not independent of a significant shareholder if he or she is a significant shareholder or is a director or has control of a significant shareholder. In addition, the BOD must make an overall evaluation of each member's independence. The considerations to be taken into account in the evaluation are, inter alia, the remuneration scheme if same as for operational management, if reign has lasted more than ten years or member has family ties subjected to circumstances described in the recommendation. (Securities Market Association 2015 e, p. 26)

Today, the majority of independent board members is a normal. In addition to the significant role in the corporate governance, having the independent board also affects the company's performance. Balsmeier et al. (2017) have investigated the effect of board independence on research and innovation processes. They come to the conclusion, companies with independent BOD made make more patents and claims. The effects were noticeable very soon after the company transferred to the independent BOD. Independent directors have been argued by several authors to be better suited to their roles as board members. Board members with no ties to the company give them credibility and weight as an assessor of company's executives. As patents and research play significant role in business performance nowadays, it is natural that executives wanting to yield good outcomes will invest in these areas.

The independent board of directors has also been found to have other benefits. Duru et al. (2016) discovered the moderating role of board independence in the case CEO duality. CEO duality, the situation where the same person is CEO as well as the chairperson of the board, is a controversial topic in both academia and business. The issue is mainly examined from the point of two primary theoretical views. Agency theory bring up the increased power of CEO over the BOD, hindering the independence between the BOD and management, whereas stewardship theory and resource dependence theory highlight the flexibility and agility of the arrangement in a dynamic business environment. However, researches have shown a negative impact of the combined leadership structure and call for to avoid it.

Duru et al. also observed the negative impact of that kind of arrangement. Nevertheless, they found that impact being contingent on board independence. The impact depends on the proportion of independent board members. The impact is negative and significant when the number of independent board members was small. However, a larger number of independent board members moderated positively that effect. “Moreover, as the proportion of independent directors rises, these negative impacts are mitigated to an extent that they eventually disappear and turn positive as the proportion of independent directors increases further” (Duru et al. 2016, p. 4276). The results bring out well the effectiveness of independent board members.

Though, the advantage of the abundance of independent board members has not received unquestionable acceptance from everyone. Bøhren and Staubo (2016) have studied gender balance and board independence in Norway. They found the gender quota increases the independence of the board but also reduced firm value. That impact of increased independence and decreased firm value was the strongest “in small, young, profitable, non-listed firms with powerful stockholders and few female directors” and “such firms also lose the most value, presumably because they need advice from dependent directors the most and monitoring by independent directors the least.” (Bøhren and Staubo 2016, p. 3)

Bøhren and Staubo discovered the pool for female director and male directors differed from each other with respect of two fundamental director skills, monitoring and advice. The former is because of the delegated control rights from owners of the company to the managers. The board members monitor and ensure that managers operate in the interest of the owners. The second task of the BOD is to advise management. To succeed in this second task, the board members need deep insight into the company and its entire business environment. Dependent directors have those skills due to their closeness to the company. They also build reputation by advising managers, hence having stronger incentives to advise than independent directors do. (Bhagat and Black 1998, 2002, cited in Bøhren and Staubo 2016, p. 7)

The gender quota forced companies to appoint a large number of female to the BODs, at the time of the gender balance law was passed until it became mandatory. During that period, the number of independent directors increased by 21 percent. That was because the small pool of dependent female candidates. Independence is much more common among female directors than male directors. Consequently, it was not possible to meet the requirements of the gender balance law and to select many dependent females simultaneously. Companies could have limited the increase of board independence by raising the board size. However, they did not do that, but the dependent male directors were mostly replaced by independent female directors. The board size of sample companies grew only by 5 percent.

By Bøhren and Staubo (2016, p. 26), the gender balance law changed the independence balance, which would have been optimal, regarding the firm-specific need for monitoring skills vs. advisory skills. The decline of the performance was the greater the bigger the difference was compared with the situation before the gender balance law. And "performance is also weaker the more the board's independence deviates from the level predicted by firm characteristics that motivate the use of independent directors."

3 Research data and methods

3.1 Data

The study examines the top 80 Finnish listed companies by market capitalization at the end of 2016. The areas of diversity examined were the age, gender and independence of board members. The research data was collected from companies' websites. A list of the top 80 Finnish listed companies by market capitalization, turnover and industry classification were obtained from Orbis database.

3.2 Methods

Diversity and independence were first analysed by statistical methods. Then hypothesis testing was done by regression analysis. The study uses turnover as a control variable in regression analysis. According to some studies, the turnover is positively associated with the board diversity. The growth in turnover is often accompanied by the complexity of the business environment. Potential benefits of board diversity are highlighted by resource dependence theory. (Arnegger et al. 2014) To examine the industry impact on diversity and independence, companies were reorganized into four industry categories, in accordance with Table 1.

Table 1 Descriptive statistics on industry

Industry	Number of	Industry classification for regression	
Banks	3	Consumer services and products	15
Chemicals, rubber,	7		
Construction	5		
Education, Health	1		
Food, beverages, tobacco	6	Financials	5
Gas, Water, Electricity	1		
Hotels & restaurants	1		
Insurance companies	1		
Machinery, equipment,	19	Materials and industrials	37
Metals & metal products	2		
Other services	13		
Post &	2		
Publishing, printing	5	Others	23
Textiles, wearing apparel,	1		
Transport	3		
Wholesale & retail trade	6		
Wood, cork, paper	4		
Total	80	Total	80

3.2.1 Regression analysis

Regression analysis is crucial for the results of the research. In order to avoid heteroskedasticity and skewed data, log transformation was done regarding the turnover and board size. The following table 2 introduce the variables of the used multivariable regression analysis and breaks down their units.

Table 2 Variables and units in regression analysis

Variable	Empirical proxy
Control variable	
Turnover *log*	Billions/year *log*
Independent variables	
Materials and industrials	Dichotomic dummy variable
Consumer services and products	Dichotomic dummy variable
Others	Dichotomic dummy variable
Shareholding	Holding of the top 10 shareholders of all shares %
Board size *log*	Board members total *log*
Dependent variables	
Independence	Independent members / board members total (%)
Gender	Female directors/male directors (%)*
Age	Age brackets (pcs)

* if more female directors, then vice versa

The multivariable regression analysis excludes one industry group, Financials. That was done because the use of four dummy variables was not successful in the regression analysis.

4 Results

4.1 Descriptive results

The 80 companies in the sample consisted of 17 different industries, machinery, equipment, furniture, recycling being the biggest industry group (19 companies), other services industry was the next large and chemicals, rubber, plastics, non-metallic products third largest. These three accounted for about half of the companies. The average number of directors on the BOD was 6.88 (refer to Table 3).

Table 3 Descriptive statistics on board size

Board size	Number of companies
4 to 5	12
6 to 7	42
8 to 9	20
10 to 11	6
12 and over	0
Total	80
Descriptive statistics	
Mean	6.88
Std Dev	1.42
Max	10
Min	4

The size on BOD varied from 4 (an other services company) to 10 (several industry). In total, there are 550 director positions in the 80 sample companies. As seen Table 4, out of the 550 directors, male directors occupied 389 positions (70.7 percent) and female directors occupied 161 ((29.3 percent). The proportion of independent board members was 75.1 percent. Most of the board members were between 51 and 70 years (73.6 percent). The average age of the board members was 56.0 years.

Table 4 Independence and diversity of directors on BOD of top 80 companies

	Frequency (no. of directors)	Percentage (%)
Total number of director positions in 80 companies	550	
Independence		
Non-independent directors	137	24.9 %
Independent directors	413	75.1 %
Gender		
Positions occupied by male directors	389	70.7 %
Positions occupied by female directors	161	29.3 %
Age		
Directors under 41	31	5.6 %
Directors between 41 and 50	94	17.1 %
Directors between 51 and 60	244	44.4 %
Directors between 61 and 70	161	29.3 %
Directors over 71	20	3.6 %

Table 5 shows, there are no more than 3 female directors in most of the sample companies and only 2 companies do not have female directors at all. The maximum proportion of female directors in the BOD was 57.1 percent and the average proportion was 28.8 percent.

Table 5 Presence of female board directors

Panel A: Gender diversity; frequency distribution	
Composition of the board	Frequency (no. of companies)
No female directors	2
1 female director	23
2 female directors	32
3 female directors	18
More than 3 female directors	5
Total	80
Panel B: Descriptive statistics; percentage of female directors	**Percentage (%)**
Mean	28.8
Std dev	11.2
Max	57.1
Min	0

Table 6 show, most of the companies have directors that fell across three age brackets. The brackets refer to age allocation shown in Table 3. There were no companies with directors only in one brackets and in one company directors fell across all five age brackets.

Table 6 Age of directors

Age of directors	Frequency (no. of companies)
Within 1 age bracket	0
Across 2 age brackets	22
Across 3 age brackets	38
Across 4 age brackets	19
Across 5 age brackets	1
Total	80

Table 7 shows the level of independence in sample companies. The table shows that most of the companies have the majority of the board comprising independent directors as per Finnish Corporate Governance Code. Only 7 companies have less than 50% of the directors independent. The proportion of independent board members was 75.2 percent on average.

Table 7 Level of board independence

	No. of companies
All IND board	16
Majority IND on board (>50%)	73
Some IND on board (<50%)	7
No IND on board	0
Total	80
Mean % of IND on board	75.2
Std dev	19.9
Max %	100.0
Min %	14.3
Independent chairperson of the board	47
Independent chairperson of the board %	58.8

The study also examined a proportion of independent chairperson of the sample BODs. That was 58.8 percent. Shareholder concentration is shown in Table 8. Top 10 shareholders most commonly owned 40 to 50 percent of the shares.

Table 8 Percentage of shareholdings for top 10 shareholders

Total shareholding held by top 10 shareholders (%)	Frequency	Percentace (%)
<10	4	5.0 %
10 to 20	5	6.3 %
20 to 30	10	12.5 %
30 to 40	11	13.8 %
40 to 50	17	21.3 %
50 to 60	9	11.3 %
60 to 70	11	13.8 %
>70	13	16.3 %
Total	80	100 %
Descriptive statistics		
Mean (%)	46.6	
Std Dev	21.1	
Max (%)	99.7	
Min (%)	6.6	

The maximum percentage owned by top 10 shareholder was up to 99.7 percent, but that was a special case. That was due to redemption process of all shares by one owner and the company left the stock exchange after that.

4.2 Hypothesis Investigation

The variables related to research was first placed in the Pearson correlation matrix (Table 9). The director independence correlated significantly and negatively with shareholder concentration. The gender diversity correlated significantly and positively with control variable turnover and significantly and negatively with shareholder concentration. The age diversity had a significant and positive correlation with shareholder concentration.

Table 9 Correlation matrix

	Turnover log	*Finan-cials*	*Materials and indust-rials*	*Consu-mer services and products*	*Others*	*Share-holding*	*Board size log*	*Indepen-dency*	*Gen-der*	*Age range*
Turnover *log*	1									
Financials	-0.205	1								
Materials and industrials	0.292**	-0.240*	1							
Consumer services and products	0.117	-0.124	-0.446**	1						
Others	-0.313**	-0.164	-0.589**	-0.305**	1					
Shareholding	-0.370**	-0.018	-0.147	0.017	0.157	1				
Board size *log*	0.601**	-0.020	0.103	0.030	-0.128	-0.275*	1			
Independency	0.191	0.024	0.190	-0.135	-0.106	-0.472**	-0.023	1		
Gender	0.389**	0.062	0.122	-0.090	-0.089	-0.389**	0.174	0.318**	1	
Age range	-0.060	0.004	0.015	-0.077	0.047	0.233*	0.188	-0.427**	-0.032	1

**Significant at $p < 0.01$, two-tailed.
*Significant at $p < 0.05$, two-tailed.

Because correlation matrix shows a significant correlation between variables, also multicollinearity test was carried out. Table 10 shows multicollinearity among variables, excluding dummy variables.

Table 10 Multicollinearity test

Variable	Tolerance	VIF
Turnover *log*	52.4 %	1.91
Shareholding	63.8 %	1.57
Board size *log*	55.9 %	1.79
Independence	63.5 %	1.58
Gender	73.6 %	1.36
Age	74.9 %	1.34

Multicollinearity can be assessed by examining tolerance and the Variance Inflation Factor (VIF). VIF measures the impact of collinearity among the variables in a regression model and it is calculated 1/Tolerance. There is no unambiguous value for determining presence of multicollinearity, but a VIF above 10 is often regarded as indicating multicollinearity. However, that may be the case already above 2.5 VIF in weaker models. (ResearchConsultation 2007) In this case, the VIF values are moderate and do not cause concern.

Table 11 expresses the results of the regression analysis. The results reveal, turnover, shareholder concentration and board size statistically significant impact on board diversity and independence. However, industry has no statistically significant impact on those dependent variables. In addition, results regarding age diversity, are not statistically significant because of F value of overall significance of regression model. To improve the model, industry variables with a p-value greater than 0,05 are excluded from regression model expressed in Table 12.

Table 11 The effects of turnover, size, industry and shareholding on board diversity and independence

	Regression 1	Regression 2	Regression 3
	Independence	Gender	Age
Control variable			
Turnover *log*	5.088	14.142**	-0.209
Independent variables			
Materials and industrials	-1.592	-13.492	0.129
Consumer services and products	-9.446	-19.042	-0.040
Others	-3.924	-10.146	0.059
Shareholding	-0.438**	-0.296*	0.010*
Board size *log*	-58.950*	-39.191	3.212**
Adjusted R^2	0.229	0.202	0.081
F value	4.918**	4.334**	2.162

Excluded variable: Financials
**Significant at p < 0.010, two-tailed.
*Significant at p < 0.050, two-tailed.

An improved regression model expressed in Table 12 presents statistically significant results for all dependent variables. The hypotheses of the studies are evaluated based on that model.

Table 12 The effects of turnover, size and shareholding on board diversity and independence

	Regression 1	Regression 2	Regression 3
	Independence	Gender	Age
Control variable			
Turnover *log*	4.669	11.324**	-0.195
Independent variables			
Shareholding	-0.452**	-0.314**	0.009*
Board size *log*	-57.451*	-30.442	3.166**
Adjusted R^2	0.236	0.199	0.110
F value	9.136**	7.546**	4.245**

**Significant at p < 0.010, two-tailed.
*Significant at p < 0.050, two-tailed.

Hypothesis 1 suggests that board diversity and independence is influenced by the size of the board – that is, larger the size of the board, the more diverse and independent are the board members. As seen in Table 12, board size is significantly and positively associated with age diversity, but significantly and negatively associated with director independence and not related to gender diversity. Thus, hypothesis 1 is valid only for age diversity but not for gender diversity and director independence.

According to hypothesis 2, there is an association between industry type, and the diversity and independence of the board of directors. The regression analysis does not support the validity of that hypothesis.

By hypothesis 3, lower shareholder concentration affects positively the diversity and independence of the board of directors. According to regression analysis, lower shareholder concentration has a statistically significant and positive impact on gender diversity and independence of board members. However, the age diversity is significantly and negatively associated with lower shareholder concentration. In that respect, hypothesis 3 is valid for gender diversity independence of board members but not for age diversity.

5 Discussion

5.1 Reflection on the results

The results of this study were somewhat surprising. First of all, the lack of industry influence on board diversity and independence. Contrary to previous researches, it did not have a statistically significant effect either on board industry or board independence. Other results were also mixed. Board size had an effect on age diversity as expected, but unexpectedly had a negative effect on board independence. Shareholder concentration affected surprisingly too. It had an effect on gender diversity and board independence, as was assumed, but it had the opposite effect on the age diversity. Shareholder concentration do not decrease but increase age diversity. The control variable turnover had also a statistically significant effect on gender diversity. That result was not surprising, and it is in line with previous studies which found the link between size of the organisation and number of female on BOD as well as diversity training exercised by large companies and BOD diversity.

When the results are compared with the study of Kang et al. regarding top 100 Australian listed companies in 2003, the results were partially similar, but the differences were also found. Over shareholder concentration and board size, the results were parallel. The industry disclosed differences. In Kang et al. study, industry type was significantly and positively associated with the independence of directors and age range, compared with this study where it had no effect. Companies in the materials and industrials industry sector had more independent boards and consumer services and products industry were likely to appoint directors in a more diverse age range. Boar size effect was also different. It had surprisingly a negative effect on board independence while it had influence only on age diversity in the study of Kang et al.

However, comparing these two study, a long-time span between them must be taken into account. The situation may be different in Australia today. Therefore, it is not advisable to go too far in comparison, even though their comparison gives an interesting addition to this study.

5.2 Contribution and future research suggestion

There is a recommendation in Finnish Corporate Governance Code 2015 that companies must define principles of the board diversity. It is good to get current information about what the situation is in Finland and what are the factors affecting the diversity and independence of the board of directors in Finnish listed companies. The study gives its contribution to the prevailing social and academic discourse by adding timely information on the subject in Finland. Research data can be utilized as a source of information when dealing with the topic. In academic terms, the research will be a ground survey for further refinement and new research topics.

The next potential research topic could be a comparative study with two studies conducted over the same time frame. Variables and factors may be different, or the setting can be turned around. The study can, of course, be done without comparison as well. Approaching may be, for example, how age diversity is reflected in the company's performance. The result is certainly of interest to many novice leader and should also be of interest to shareholders. Changing a study sample to a small cap on the Finnish stock exchange is also the natural research topic.

6 Summary and conclusions

6.1 Research summary

The purpose of this study was to examine the extent of board diversity and independence in top 80 Finnish listed companies in 2016 and the influential factors involved. As regards gender diversity, it has developed positively in recent years. There were only two companies with no female directors in the BOD. The average proportion was 28.8 percent. The gender diversity was influenced by control variable turnover and independent variable shareholder concentration. Lower shareholder concentration as well as turnover have a significant and positive impact and on gender diversity.

As to age diversity, most companies fell across three age brackets. Most of the board members were between 51 and 70 years (73.6 percent) and average age of the board members was 56.0 years. The age diversity is affected by both the board size and the shareholder concentration, being significantly and positively associated with both of them.

The state of board independence was mainly good. Still the company sample contained 7 companies with less than 50 percent independent board members, contrary to the recommendation of Finnish corporate governance code. On the other hand, 16 companies have all independent board and 73 companies had majority of their members independent. The average proportion of the independent members in BODs was 75.2 percent. The board independence was affected by shareholder concentration and board size. Lower shareholder concentration as well as smaller board size have a statistically significant and positive impact on independence of board members.

6.2 Conclusions

The main findings of the study, regarding the gender and age diversity in the largest Finnish listed companies were mixed. Contrary to previous researches, industry did not have a statistically significant effect either on board industry or board independence. Board size had an effect on age diversity as expected, but unexpectedly had a negative effect on board independence and did not affect gender diversity. Shareholder concentration influenced gender diversity and board independence, as was assumed, but it had the opposite effect on the age diversity. Shareholder concentration increased age diversity.

Even if the results were unexpected, they can be interpreted as follows: It may be just good that the industry did not have a statistically significant effect on board diversity and independence. According to the recommendations of Finnish corporate governance code, companies must ensure adequate diversity and independence of board members irrespective of company's industry. The results can tell the companies take the corporate governance code seriously. Also, diversity training, exercised by large companies, can have an impact on the realization of gender diversity. This study investigated the largest Finnish listed companies, if all listed companies were included, the result could be different. The positive impact of shareholder concentration on age diversity can be interpreted in the way of when the owners have enough votes, they can more easily arrange the board seats for example to their descendants or some young talent.

The fact that the larger board size has a significant impact on the age diversity, but not on the gender diversity can be interpreted in such a way that the focus of diversity has shifted from gender to age. The growth in the board size seems to give room to age diversity. To some extent, these two can also be considered to compete. The negative effect of board size on board independence requires further research. One possible factor could be the larger boards have more directors who have connection to the owners. However, these directors would be like extra members so that the interests of other owners would not be jeopardized. The negative impact of shareholder concentration on board independence support that presumption in the sense that shareholders with a lot of votes have more influence over the election of board members.

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